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10/025,609	12/26/2001	Liangchi Alan Hsu	730.39974X00	4421

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EXAMINER

TSEGAYE, SABA

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 07/02/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/025,609

Applicant(s)

HSU ET AL.

Examiner

Saba Tsegaye

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36, 53, 55 and 56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 53 and 55 is/are allowed.
- 6) ☒ Claim(s) 1-10, 35, 36 and 56 is/are rejected.
- 7) ☒ Claim(s) 11-34 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On page 4, line 8, and Abstract, line 9, the phrase “ a quality indication of transmission of data packets over the forward channel to the base station” is confusing, because data packets are transmitted over the forward channel to mobile station not to base station.

Claim Objections

2. Claim 1 is objected to because of the following informalities: on line 7, the limitation “receiving from the mobile station at the base station...**data packets over the forward channel to the base station**” is confusing, because data packets are transmitted over the forward channel to mobile station not to base station. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the

Art Unit: 2662

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Balachandran et al. (US 6,567,375).

Balachandran discloses, in Fig. 2, a base station 12 and mobile stations 20, 30, and 40. Further, Balachandran discloses a process for controlling selection of a modulation and coding selection method to be used by a base transceiver station 12 to transmit data packets over a forward shared channel to a mobile station 20, 30, 40 comprising:

storing information at the base transceiver station, the information containing modulation and coding selection methods which may be selected to transmit data packets over the forward shared channel to the mobile station 20, 30, 40 (column 5, lines 37-49) ;

receiving from the mobile station at the base transceiver station a quality indication of transmission of transmission of data packets over the forward channel (column 4, lines 14-35); and

selecting a modulation and coding selection method from a plurality of modulation and coding selection methods which may be used to transmit data packets on the forward channel dependent upon the received quality indication (column 5, lines 37-column 6, line 57, column 7, line 60- column 8, line 5).

5. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Airy et al. (US 6,400,699).

Art Unit: 2662

Regarding claim 1, Airy discloses, in Fig. 3, an apparatus and methods for scheduling wireless transmission of data blocks between at least one antenna of a base transceiver station and multiple subscriber units 397, 399. Further, Airy discloses a process for controlling selection of a modulation and coding selection method to be used by a base transceiver station to transmit data packets over a forward shared channel to a mobile station comprising:

storing information at the base transceiver station, the information containing modulation and coding selection methods which may be selected to transmit data packets over the forward shared channel to the mobile station (column 10, lines 35-42);

receiving from the mobile station at the base transceiver station a quality indication of transmission of transmission of data packets over the forward channel (column 5, lines 30-36; column 10, lines 35-42); and

selecting a modulation and coding selection method from a plurality of modulation and coding selection methods which may be used to transmit data packets on the forward channel dependent upon the received quality indication (column 3, lines 16-25; column 10, line 56-column 11, line 5; column 12, lines 5-12).

Regarding claim 2, Airy discloses a process, wherein the information correlates modulation and coding methods with frame error rate and throughput determined by the mobile station (column 3, lines 16-25).

Regarding claim 3, Airy discloses a process, wherein selection of one of the modulation and coding selection methods optimizes transmission of the data packets (column 10, lines 54-column 11, line 5).

Art Unit: 2662

Regarding claims 4-6, Airy discloses a process, wherein the quality indication of transmission comprises a ratio of Ec to Nt (column 10, lines 50-52).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 7-10 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Airy et al. (US 6,400,699) in view of Endo et al. (US 6,035,210).

Airy discloses all the claim limitations as stated above, except for the quality indication of transmission comprises a function of frame error rate or a function of throughput calculated by the mobile station.

Endo teaches a mobile terminal includes a radio signal reception and transmission device for radio communication with the radio base station, and a forward channel error measuring device for measuring a frame error rate of the forward channel radio signals from the radio base station so as to report it as a forward channel frame error rate to the radio base station.

It would have been obvious to one ordinary skill in the art at the time of the invention was made to add a function of frame error rate or a function of throughput calculated by the mobile station, such as that suggested by Endo, in the quality indication of Airy in order to provide a radio communication quality of a forward channel.

Art Unit: 2662

8. Claim 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Airy in view of Zhang et al. (WO 03/010984).

Airy discloses all the claim limitations as stated above, except for the stored information is stored in two tables and the channel is R-QIECH.

Regarding claim 35, Airy, in Fig. 8, shows a service flow table, which includes the type of modulation and coding to be used when providing the data blocks of the service flow request.

It would have been obvious to one ordinary skill in the art at the time of the invention was made to add more tables in the system of Airy in order to have a separate table for different information.

Regarding claim 36, Zhang teaches that the MS sends feedback information including a channel condition indicating the quality of the forward link on the reverse channel quality indication channel R-~~QIE~~CH.

It would have been obvious to one ordinary skill in the art at the time of the invention was made to add a method that receive at base station a quality indication of transmission of data packets over the forward channel from the mobile station, such as that suggested by Zhang, in the method of Airy in order to increase total throughput.

Allowable Subject Matter

9. Claims 53 and 55 are allowed.

10. Claims 11-34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cudak et al. (US 6,253,063) discloses a method and apparatus for selecting a communication data rate between mobile and base stations.

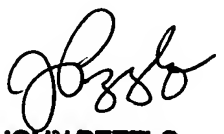
Denkert et al. (US 6,374,117) discloses a method and system for selecting modulation and coding to provide greater throughput.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saba Tsegaye whose telephone number is (703) 308-4754. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (703) 305-4744. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

ST
June 27, 2003


JOHN PEZZLO
PRIMARY EXAMINER